

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the  
application:

**Listing of Claims:**

***Claims***

Claims 1-273 (Cancelled)

Claim 274 (New) A method for pricing a derivative contract comprising:

- a) receiving via an input device a request from a user for a price of a described derivatives contract, said description comprising a contact agreement time, a premium payment time, a payout payment time and a payout payment function expressed as a function of the realized values of specified underlying(s) between premium payment time and payout payment time, with possibly optional parameter choices to the buyer or seller; (See pg 4,29, figs 3,5 & 9 item 11)
- b) receiving via another input device, a price for each marginal unit of basis instruments contracts (BICs) of same payout payment time as the described derivative contract and relevant underlying(s); (See pgs 17,18,19 Figs 6,7, 11,& 9 item 11)
- c) decomposing by a computer processor, the derivative contract into a portfolio of BICs of same payout payment time; (See Fig 4, Pg4, 29-32)
- d) yielding, by the computer processor, a premium payment amount of the derivative contract for the premium payment time of the composing BICs as a weighted sum of the composing BICs prices in proportions given by the portfolio decomposition; (See Fig 4, Pg4, 29-32)

- c) repeating the steps a), b), c) and d), where the premium payment amount of the derivative contract for the premium payment time of the composing BICs is fed back to an input device as in step a) as the new described derivatives contract with an incrementally decreased payout payment time, said iteration continuing until the premium payment time of step d) coincides with the premium payment time specified by the user in the initial derivatives contract description of step a). (See Fig 4, Pg4)
- f) and transmitting, via an output device linked to the processor, the ultimate premium payment amount of the derivative contract to the user who requested the price of the derivative contract. (See pg 4, figs 5 & 9 item 12)

Claim 275 (New) The method of claim 274 where BICs are supplied in a variety of payout payment formats, including the Options format, the extended Arrow Debreu format and the Fourier format.(See pgs. 23-26)

Claim 276 (New) The method of claim 274 used in a trading or exchange system and further comprising a step of computing the marginal price of each unit or group of composing BICs by selecting the most competitive price among those quoted by one or more market makers. (See Fig. 12, 13)

Claim 277 (New) The method of claim 275 where selected most competitive prices are subsequently contracted upon confirmation of a user's intent to trade the original derivatives contract.

Claim 278 (New) The method of claim 274 where the price of BICs received via another input device is provided in aggregate or compressed form to reduce complexity or computing time. (See Fig. 13,18,19)

Claim 279 (New) The method of claim 274 where the price transmitted via an output device linked to the processor is increased by an optional service margin.

Claim 280 (New) A system for pricing a derivative contract comprising:

- a) an input device configured to receive a request from a user for a price of a described derivatives contract, said description comprising a contract agreement time, a premium payment time, a payout payment time and a payout payment function expressed as a function of the realized values of specified underlying(s) between premium payment time and payout payment time, with possibly optional parameter choices to the buyer or seller; (See pg 4,29, figs 3,5 & 9 item 11)
  - b) an input device configured to receive a price for each marginal unit of basis instruments contracts (BICs) of same payout payment time as the described derivative contract and relevant underlying(s); (See pgs 17,18,19 Figs 6,7, 11,& 9 item 11)
  - c) a computer processor linked to the input device of a) configured to decompose the derivative contract into a portfolio of BICs of same payout payment time; (See Fig 4, Pg4, 29-32)
- a computer processor linked to the input device of b) and a) configured to:
- d) yield, by the computer processor, a premium payment amount of the derivative contract for the premium payment time of the composing BICs as a weighted sum of the composing BICs prices in proportions given by the portfolio decomposition; (See Fig 4, Pg4, 29-32)
  - e) repeat the steps a), b), c) and d), where the premium payment amount of the derivative contract for the premium payment time of the composing BICs is fed

- back to an input device as in step a) as the new described derivatives contract with an incrementally decreased payout payment time, said iteration continuing until the premium payment time of step d) coincides with the premium payment time specified by the user in the initial derivatives contract description of step a); (See Fig 4, Pg4)
- f) and an output device linked to the computer processor configured to transmit the ultimate premium payment amount of the derivative contract to the user who requested the price of the derivative contract. (See pg 4, figs 5 & 9 item 12)
- Claim 281 (New) The system of claim 280 where BICs are supplied in a variety of payout payment formats, including the Options format, the extended Arrow Debreu format and the Fourier format.(See pgs. 23-26)
- Claim 282 (New) The system of claim 280 used in a trading or exchange system and further comprising a step of computing by a computer processor linked to the input device of step b), the marginal price of each unit or group of composing BICs by selecting the most competitive price among those quoted by one or more market makers. (See Fig. 12, 13)
- Claim 283 (New) The system of claim 281 where selected most competitive prices are subsequently contracted upon confirmation of a user's intent to trade the original derivatives contract.
- Claim 284 (New) The system of claim 280 where the price of BICs received via another input device is provided in aggregate or compressed form to reduce complexity or computing time. (See Fig. 13,18,19)

Claim 285 (New) The system of claim 280 where the price transmitted via an output device linked to the processor is increased by an optional service margin.

Claim 286 (New) A computer program product for pricing a derivative contract comprising computer readable memory having control logic stored therein for execution on a computer, said control logic comprising:

- a) instructions to receive from an input device a request from a user for a price of a described derivatives contract, said description comprising a contract agreement time, a premium payment time, a payout payment time and a payout payment function expressed as a function of the realized values of specified underlying(s) between premium payment time and payout payment time, with possibly optional parameter choices to the buyer or seller; (See pg 4,29, figs 3,5 & 9 item 11)
- b) instructions to receive from an input device a price for each marginal unit of basis instruments contracts (BICs) of same payout payment time as the described derivative contract and relevant underlying(s); (See pgs 17,18,19 Figs 6,7, 11,& 9 item 11)
- c) instructions to cause a computer processor linked to the input device of a) to decompose the derivative contract into a portfolio of BICs of same payout payment time; (See Fig 4, Pg4, 29-32)

instructions to cause a computer processor linked to the input device of b) and a) configured to:

- d) yield, by the computer processor, a premium payment amount of the derivative contract for the premium payment time of the composing BICs as a weighted sum

of the composing BICs prices in proportions given by the portfolio decomposition;  
(See Fig 4, Pg4, 29-32)

- e) repeat the steps a), b), c) and d), where the premium payment amount of the derivative contract for the premium payment time of the composing BICs is fed back to an input device as in step a) as the new described derivatives contract with an incrementally decreased payout payment time, said iteration continuing until the premium payment time of step d) coincides with the premium payment time specified by the user in the initial derivatives contract description of step a); (See Fig 4, Pg4)
- f) and instructions to cause an output device linked to the computer processor configured to transmit the ultimate premium payment amount of the derivative contract to the user who requested the price of the derivative contract. (See pg 4, figs 5 & 9 item 12)

Claim 287 (New) The computer program product of claim 286 where BICs are supplied in a variety of payout payment formats, including the Options format, the extended Arrow Debreu format and the Fourier format.(See pgs. 23-26)

Claim 288 (New) The computer program product of claim 286 used in a trading or exchange system and further comprising instructions to cause a computer processor linked to the input device of step b), to compute the marginal price of each unit or group of composing BICs by selecting the most competitive price among those quoted by one or more market makers. (See Fig. 12, 13)

Claim 289 (New) The computer program product of claim 287 where selected most competitive prices are subsequently contracted upon confirmation of a user's intent to trade the original derivatives contract.

Claim 290 (New) The computer program product of claim 286 where the price of BICs received via another input device is provided in aggregate or compressed form to reduce complexity or computing time. (See Fig. 13,18,19)

Claim 291 (New) The computer program product of claim 286 where the price transmitted via an output device linked to the processor is increased by an optional service margin.